



HPNS BCT Meeting



Parcel E Pothole Area Characterization



Hunters Point Naval Shipyard BCT Meeting



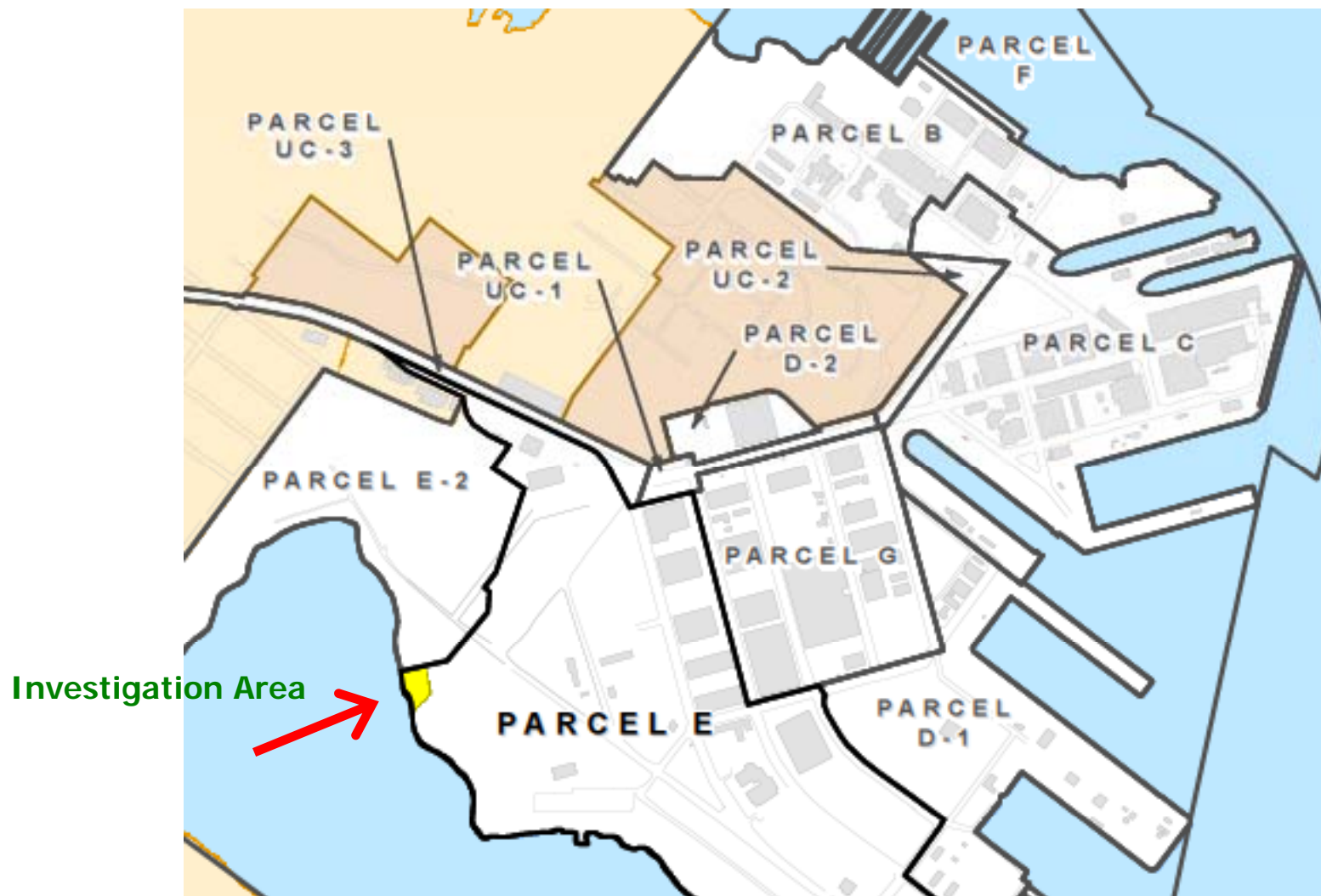
Presentation Objectives



- Provide a summary of data collected during the first round of direct-push soil sampling
- Discuss and select locations for step-out borings for second (final) round

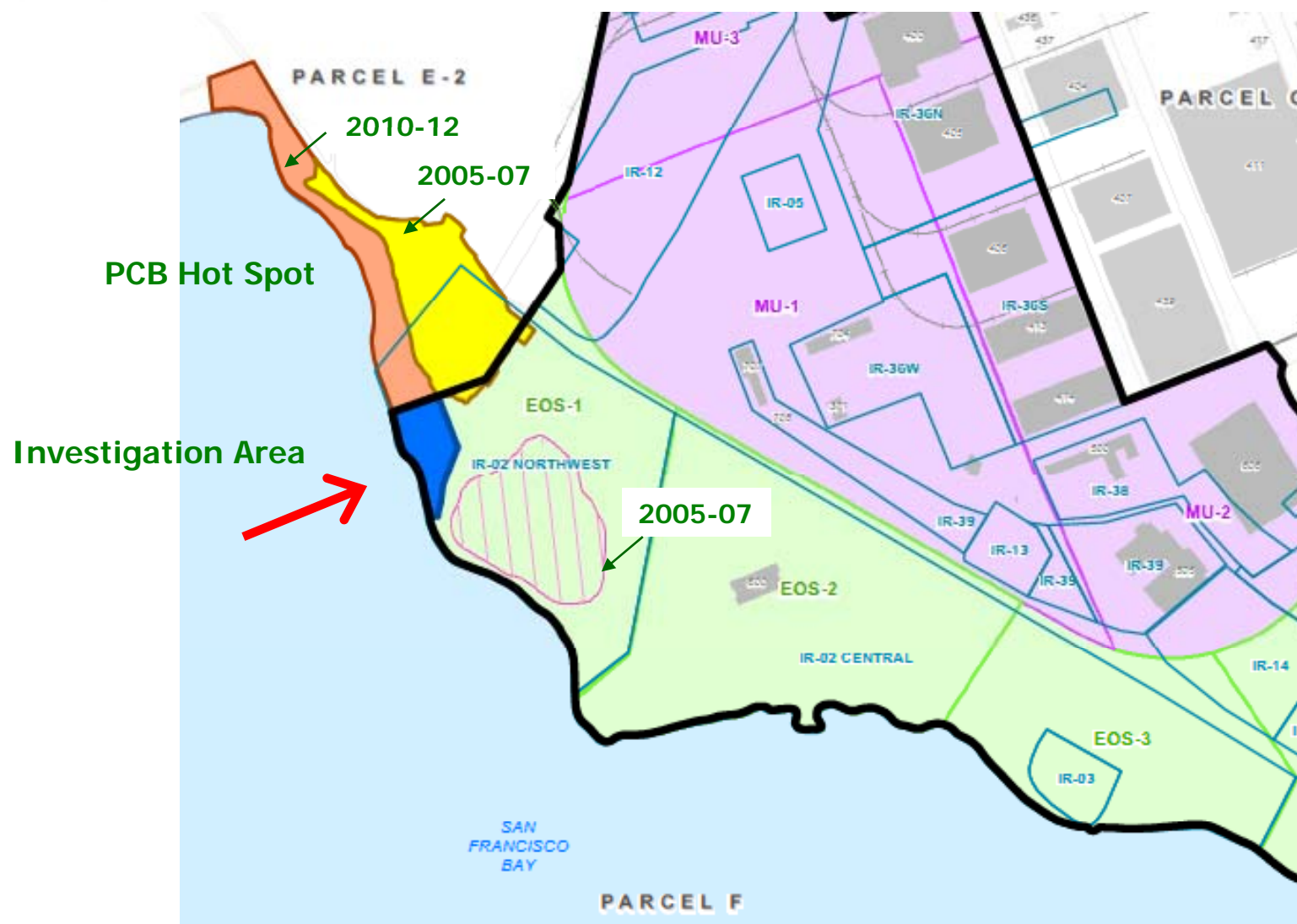


Location of Investigation



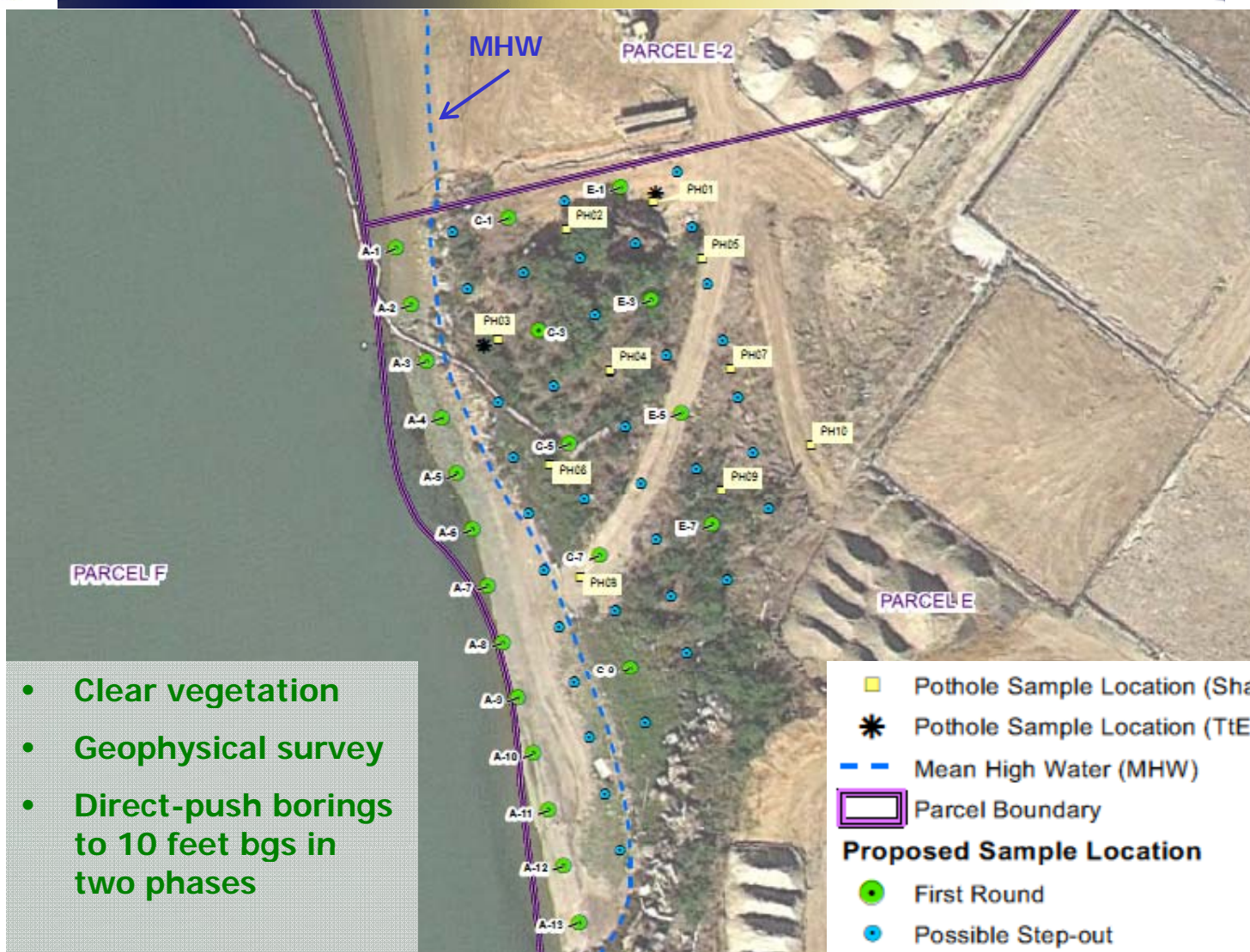


Nearby Removal Actions/TCRAs





Field Sampling Plan Sample Locations





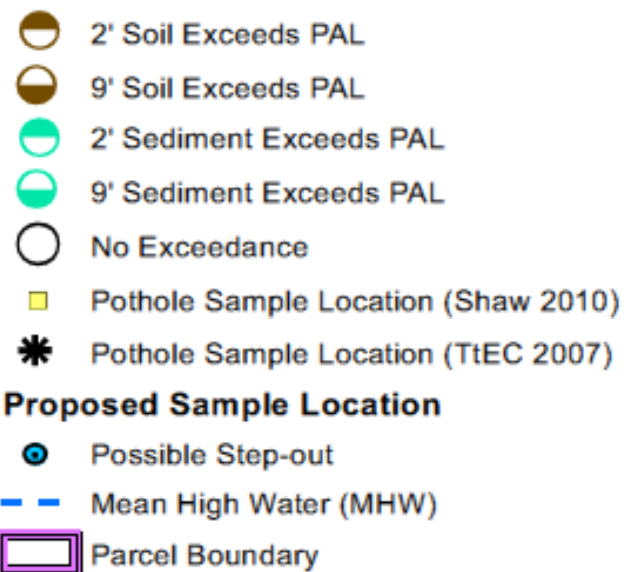
Chemicals of Concern



- COCs are based on ecological risk in sediment; human health risk in soil
- Sediment (bayward of Mean High Water [MHW] line)
 - PCBs (total aroclors)
 - Total TPH
 - Pesticides (total DDT)
 - Select metals
- Soil (landward of MHW line)
 - PCBs (aroclors 1254 and 1260)
 - Total TPH
 - Pesticides (dieldrin and heptachlor epoxide)
 - PAHs (7 carcinogenic PAHs)
 - Select metals



Results from Round 1



- Samples collected at 2 and 9 feet
- Most locations exceeded at least one PAL
- Southern shoreline had several locations with no PAL exceedances



Proposed Locations for Round 2



First Round Sampling Results

- 2' Soil Exceeds PAL
- 9' Soil Exceeds PAL
- 2' Sediment Exceeds PAL
- 9' Sediment Exceeds PAL
- Pothole Sample Location (Shaw 2010)
- Pothole Sample Location (TtEC 2007)

Proposed Step-out Locations

- Sediment - sample 2' and 9'
- Sediment - sample 2' only
- Sediment - sample 9' only
- Sediment - interior step-out
- Soil - sample 2' and 9'
- Soil - sample 2' only
- Soil - sample 9' only
- Soil - interior step-out

- Propose sampling at most step-out locations
- Propose sampling "interior" step-outs only if an adjacent step-out shows visible contamination or indicated by field screening (PID or FID)



Overview of Results and Plans



- At least one PAL was exceeded at 16 of the 22 locations sampled during round 1.
- Step-out sampling is recommended at 27 locations.
 - “Interior” step-outs not included in this 27 total (there are 8 interior locations).
 - Step-out samples to be collected from the same depth interval where a sample exceeded a PAL in the initial boring (that is, 2 feet, 9 feet, or both).
 - Step-out samples to be analyzed for all COCs (dependent on sediment or soil).
- PALs were not exceeded at 6 locations and further sampling is not required.



Schedule



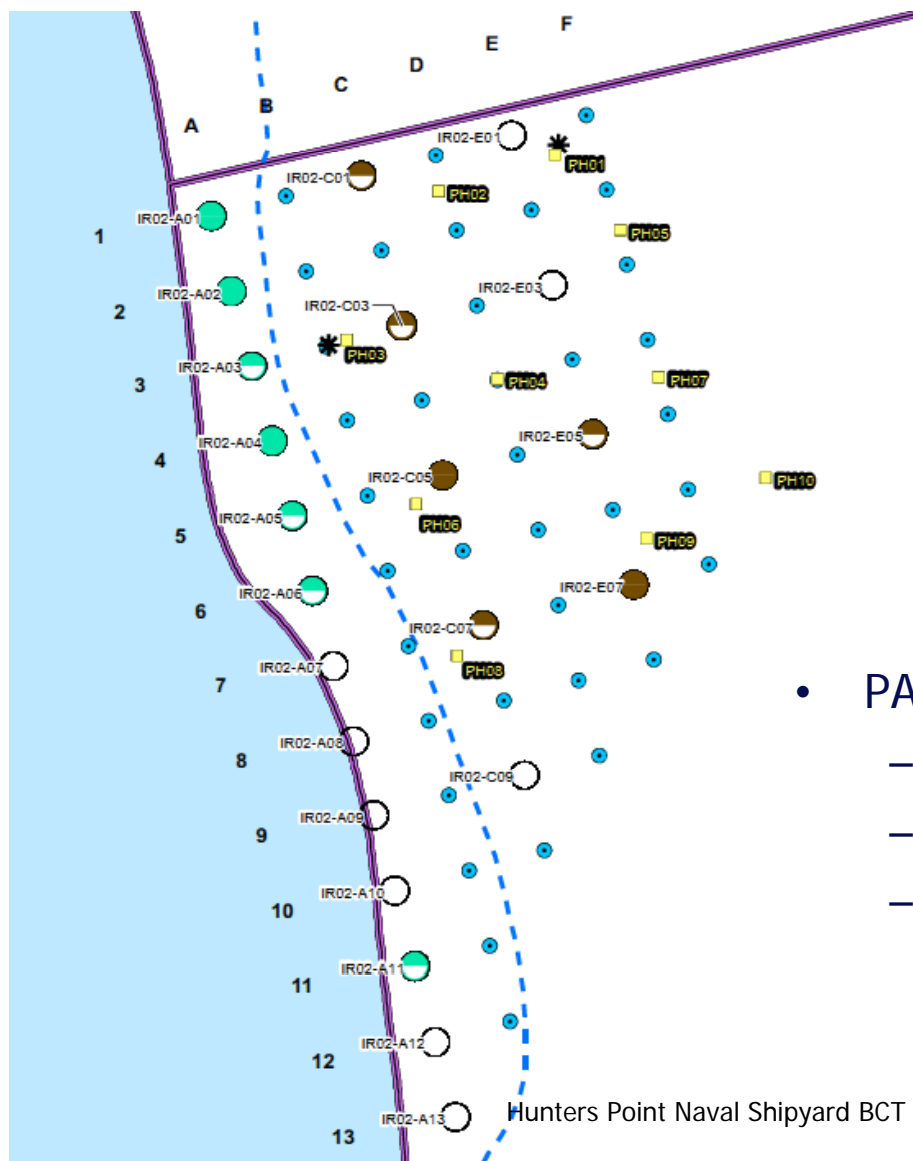
- Second round of drilling and sampling in mid to late August
- Draft completion report to BCT about 2½ months after the completion of field work (about November)



Comments, Questions, Concerns ???



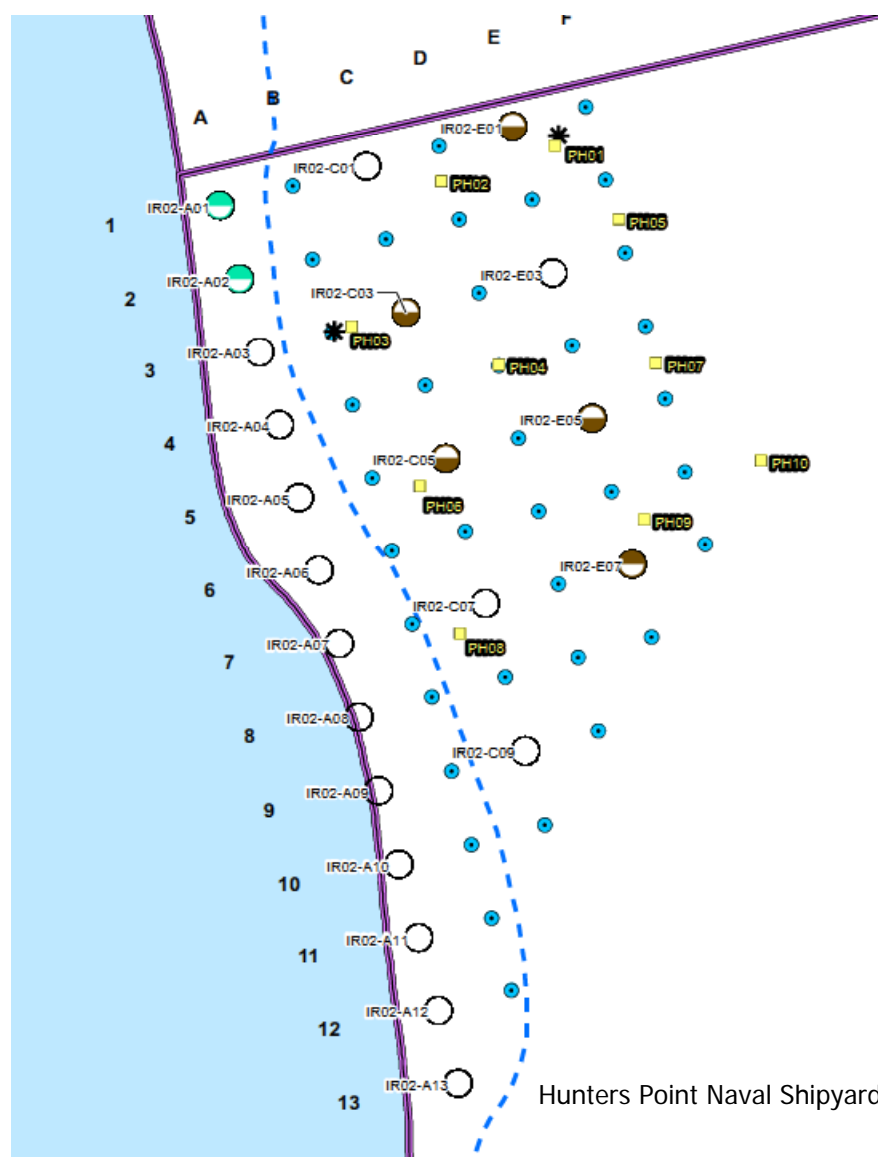
Round 1 -- PCBs



- PALs
 - Sediment Total PCBs = 1 mg/kg
 - Soil Aroclor 1254 = 0.465 mg/kg
 - Soil Aroclor 1260 = 1.05 mg/kg



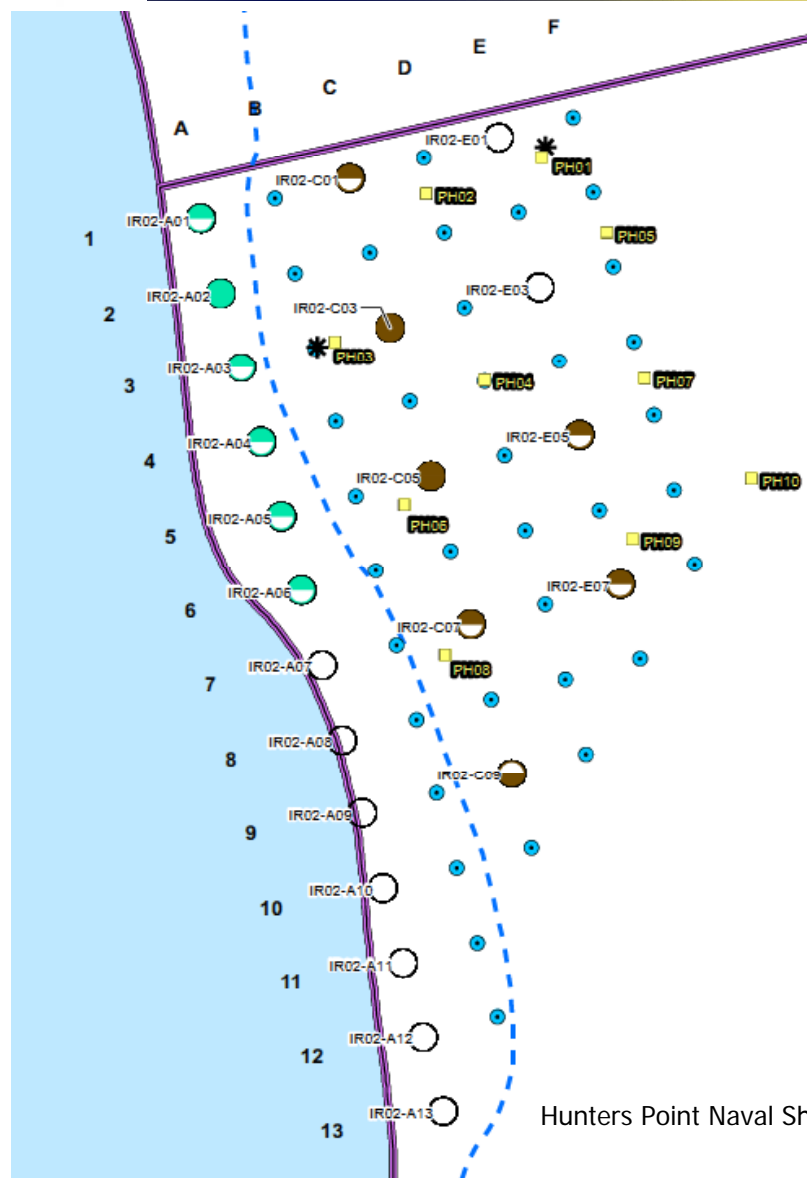
Round 1 – Total TPH



- PAL
 - Total TPH = 3,500 mg/kg



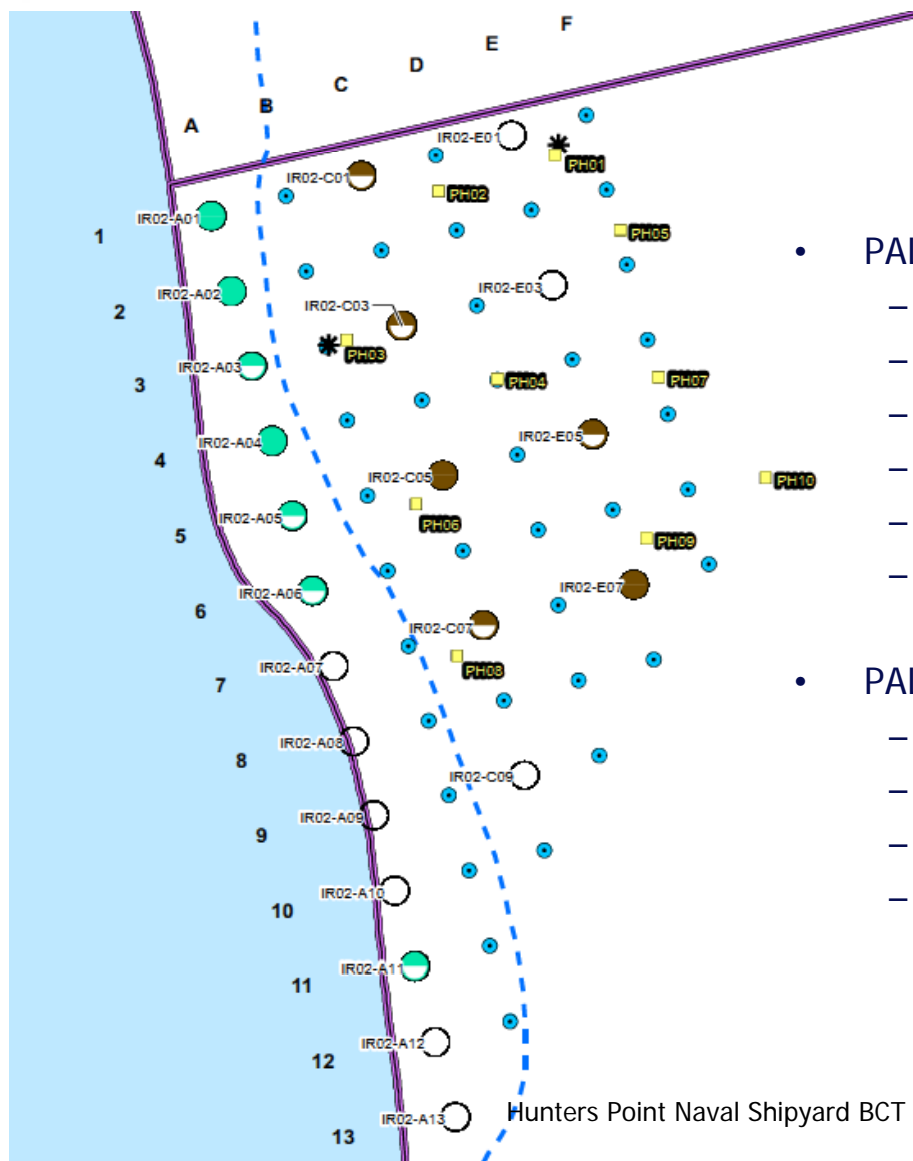
Round 1 -- Pesticides



- PALs
 - Sediment Total DDT = 0.2305 mg/kg
 - Soil dieldrin = 0.017 mg/kg
 - Soil heptachlor epoxide = 0.027 mg/kg



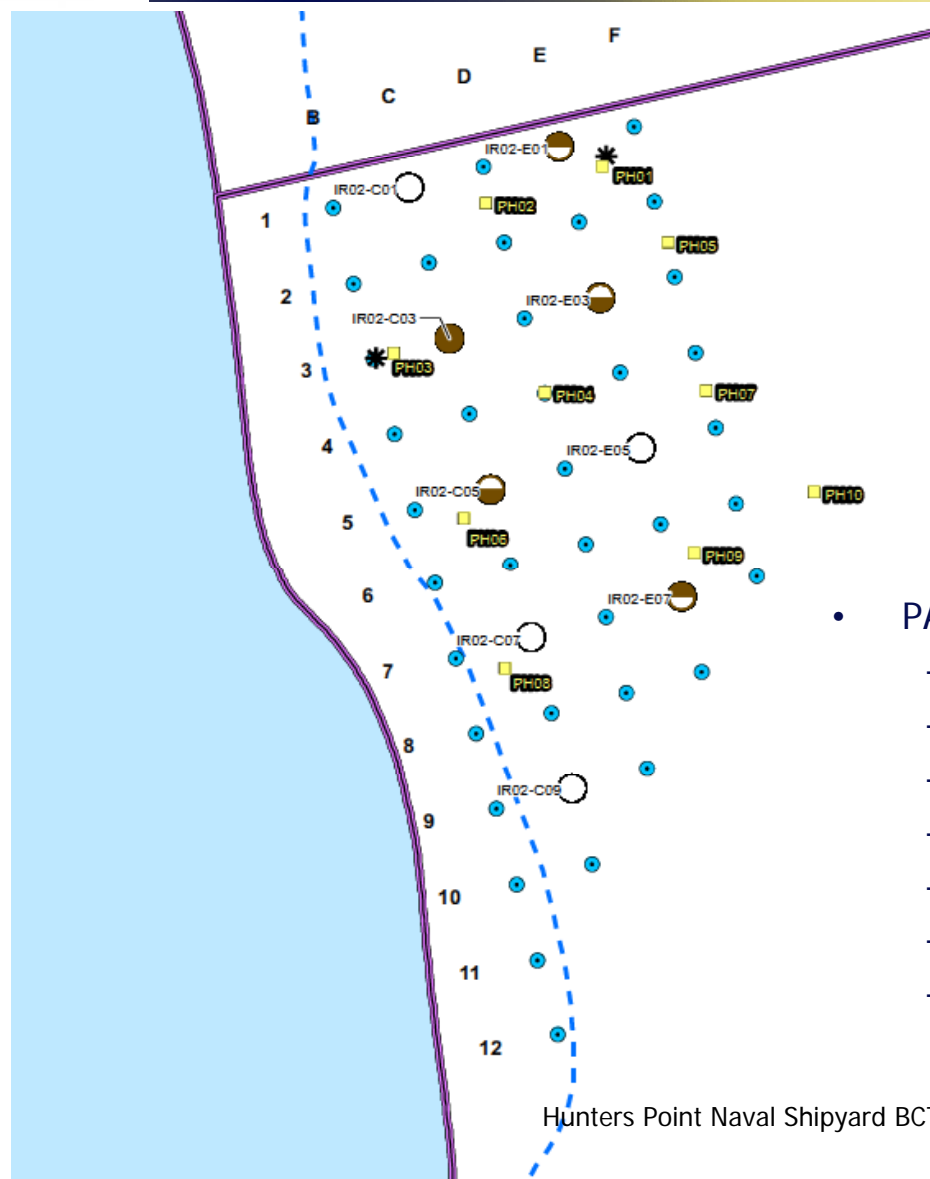
Round 1 -- Metals



- PALs Sediment
 - Cadmium = 15.7 mg/kg
 - Copper = 620 mg/kg
 - Lead = 1,090 mg/kg
 - Mercury = 11.4 mg/kg
 - Molybdenum = 13.4 mg/kg
 - Zinc = 790 mg/kg
- PALs Soil
 - Arsenic = 55.5 mg/kg
 - Copper = 800 mg/kg
 - Lead = 775 mg/kg
 - Zinc = 1,850 mg/kg



Round 1 -- PAHs



- PALs Soil
 - Benzo(a)anthracene = 1.85 mg/kg
 - Benzo(a)pyrene = 1.65 mg/kg
 - Benzo(b)fluoranthene = 1.7 mg/kg
 - Benzo(k)fluoranthene = 1.7 mg/kg
 - Chrysene = 65 mg/kg
 - Dibenz(a,h)anthracene = 1.65 mg/kg
 - Indeno(1,2,3-cd)pyrene = 1.75 mg/kg